# APPENDIX G

## Simulator Log

# Simulator Log

3/31/00 pm
TM

Systems demo

March 30, 2000 Page 1/13

| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | FDR Start Time (if diff. than 1235 sec.) | Comments |
|---|---|---|---|---|---|---|---|
| | | | | | | | Open Session |
| egypt-demo -22.dat | 1 | 2:37 | 7 | 12 | 1a | ET = 6 sec | "Hands off." (Some SW added by Captain) |
| | 2 | | ✓7 | 12 | 1b | ~5 sec | Recover immediately 32,600 ft (lowest alt.) 7: "Heavier than normal |
| | 3 | | ✓7 | 12 | 1c 5 sec | 6 sec | 5 sec delay before recovery Lowest ALT: 31900 ft |
| | 4 | 2:45 | ✓7 | 12 | 1c 10 sec | ~5 sec | 10 sec Pilot Delay Lowest ALT: 30800 ft |
| | 5 | 2:49 | ✓7 | 6 | 1c 20 sec | ~5 sec | 20 sec delay Lowest ALT: 24770 ft |
| | 6 | | 7 | 6✓ | 1b | ~5 sec | Immediate recovery Lowest alt.: 32700 ft |

Failure

Enclosure 6
BE326-C00-029
Pg. 1 of 13

**Pilots:**

1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12. Mr. Handy

**Scenarios:**

1 = dual disconnect
2 = 1 disconnect, 1 jam
3 = dual DCU jam

1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) Free Response
b) Immediate Response

# Simulator Log

Systems Demo

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3/31/00 pm
T.M

| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | ~~FDR Start Time (if diff. than 1235 sec.)~~ Failure Time | Comments |
|---|---|---|---|---|---|---|---|
| egypt-demo -26.dat | 7 | ~2:52 PM | 7 | 6✓ | 1c 5sec | ~5sec | 5 sec delay, lowest alt: 31800 ft |
| | 8 | | 7 | 6✓ | 1c 20sec | ~5sec | 20 sec delay lowest alt: 24100 ft. |
| | 9 | 2:56 | 7 | 6✓ | 1c 24k ft | ~5sec | Recover initiated @ 24000 ft Lowest alt: 18420 ft |
| | 10 | 3:00 | ✓1 | 12 | 1b | ~5sec | Immediate recovery |
| | 11 | | ✓1 | 12 | 1c 5sec | 5sec | 5 sec Delay lowest alt: 31660 ft VERIFIED Y/d's. are ON |
| | 12 | | ✓1 | 12 | 1c 20sec | ~5sec | 20 sec delay Lowest alt: 23900 ft |

Enclosure 6
BE326-C00-029
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**Pilots:**

1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. ~~John Cashman~~
10. Capt. ~~Buzz Nelson~~
11. Capt. ~~Gus Stearns~~
12. MR HANDY

1 = dual disconnect
2 = 1 disconnect, 1 jam
3 dual jam

**Scenarios:**

1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) Free Response
b) Immediate

# Simulator Log

Systems Demo

March 30, 2000



3/31/00 PM
TM

| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | ~~FDR Start Time (if diff. than 1235 sec.)~~ Failure @ Time | Comments |
|---|---|---|---|---|---|---|---|
| egypt-demo -26.dsc | 13 | 3:03 PM | ✓ 1 | 12 | "1b" | * | *Failure inserted while pilot manually flying. Used Sa TRIM &/or Sa TRIM COMBINATIONS |
| | 14 | | 1 | 12 ✓ | 1b | -5 sec | Immediate response |
| | 15 | | 1 | 12 ✓ | 1c 5 sec | -5 sec | 5 sec delay Lowest alt: |
| | 16 | | 1 | 12 ✓ | 1c 20 sec | -5 sec | 20 sec delay Lowest alt: |
| | 17 | | 1 | 13 ✓ | 1b | | Immediate response |
| | 18 | | 1 | 13 ✓ | 1c 5 sec | | 5 sec delay Lowest alt: 31350 ft |

Enclosure 6
BE326-C00-029
Pg. 3 of 13

**Pilots:**

1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12. Mr. Hardy

1 = dual disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**

1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) Free Response
b) Immediate recovery
c) [illegible]

# Simulator Log

3/31/00 PM

TM

Systems Demo

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| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | ~~FDR Start Time (if diff. than 1235 sec.)~~ Failure @ time | Comments |
|---|---|---|---|---|---|---|---|
| egypt_demo 26.dm | 19 | | 1 | 13✓ | 1c 20sec | 5sec | 20 sec delay Lowest alt: 25240 pt |
| | 20 | | 1 | 13✓ | "1c" | | Wait for overspeed warning overspeed: 17 sec after failure |
| | 21 | 3:15 | 1 | 6 | 2a | 7sec | Free response |
| | 22 | | ✓1 | 6 | 2b | 6sec | Immediate response Lowest alt: 32580 pt |
| | 23 | | ✓1 | 6 | 2c 5sec | 7sec | 5 sec delay Lowest alt: 31280 pt |
| | 24 | | ✓1 | 6 | 2c 20sec | ~7sec | 20 sec delay lowest alt: 22380 pt 1:" I have opt column at the stop |

Enclosure 5
BE326-C00-029
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**Pilots:**

1. Capt. P.D. Weston
2. ~~Dr. Brenner~~
3. ~~Dr. Elias~~
4. ~~Dr. Bolte~~
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. ~~John Cashman~~
10. Capt. ~~Buzz Nelson~~
11. Capt. ~~Gus Stearns~~
12. Mr. Hamedy
13. Mrs. [illegible]

1 = dual disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**

1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Free response
b) Immediate response
c) Delayed

# Simulator Log

Systems Demo

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3/31/00 PM
TM

| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | FDR Start Time ~~(if diff. than 1235 sec.)~~ Failure @ time | Comments |
|---|---|---|---|---|---|---|---|
| egypt_demo -26.dat | 25 | | 1 | 6✓ | 2b | | Immediate recovery Lowest alt: 32580 pt |
| | 26 | 3:21 | 1 | 6✓ | 2c 5sec | 6sec | 5 sec delay Lowest alt: 30850 pt |
| | 27 | | 1 | 6✓ | 2c 20sec | 6sec | 20 sec delay Lowest alt: 22600 pt |
| | 28 | | 1 | 6✓ | "2c" 24k' | 6sec | * Recovery Initiated starting at 24000 pt. Lowest alt: ~17500 pt |
| | 29 | 3:28 | 7 | 12 | 2a | 6sec | Free Response |
| | 30 | | ✓7 | 12 | 2b | | Immediate Response Lowest at 31960 pt (?) |

Enclosure 6
BE326-C00-029
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**Pilots:**
1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12 Mr Hamedy

1 = dual Disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**
1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Free Response
b) Immediate response
c) Delayed

# Simulator Log

Systems Demo

March 30, 2000

3/31/00 pm
PM

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| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | ~~FDR Start Time (if diff. than 1235 sec.)~~ "ET" Failure @ time | Comments |
|---|---|---|---|---|---|---|---|
| egypt-demo 26.dat | 31 | 3:30 | ✓7 | 12 | 2c 5sec | | 5 sec delay L.A = 31150 ft (Lowest altitude) |
| | 32 | | ✓7 | 12 | 2c 20sec | | 20 seconds delay. L.A. = |
| | 33 | | ✓7 | 12 | 2c 24K" | | Manually flying testing to see if jerk @ failure is noticeable: yes Recovery initiated at 24000 feet L.A. = 16300 FT |
| | 34 | | 7 | 12✓ | 2b | 0sec | Immediate recovery L.A. = 32320 ft |
| | 35 | | 7 | 12✓ | 2c 5sec | | 5 second delay LA = 31680 ft |
| | 36 | | 7 | 12✓ | 2c 20sec | | 20 second delay LA = ~22750 ft |

Enclosure 6
BE326-C00-029
Pg. 6 of 13

**Pilots:**

1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12 Mr Hamedy

1 = dual disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**

1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Force response
b) Immediate response
c) Delayed

# Simulator Log

3/31/00 PM
TM

Systems Demo

March 30, 2000



| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | FDR Start Time (if diff. than 1235 sec.) | Comments |
|---|---|---|---|---|---|---|---|
| egypt-dem -26.dm | 37 | 3:39 pm | 14 | 13✓ | 2b | | Immediate response |
| | 38 | | 14 | 13✓ | 2c 5sec | | 5 sec delay |
| | 39 | | 14 | 13✓ | 2c 20sec | | 20 sec delay LA = 23450 ft. (lowest alt) |
| end of egypt-dem -26.dm | 40 | | ✓14 | 13 | 2c 20sec | | 20 second delay L.A. = |
| | | | | | | | |
| | | | | | | | |

Failure @ time

Enclosure 6
BE326-C00-029
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**Pilots:**
1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12. Mr. Hamdy
13. [illegible]

1 = dual disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**
1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Free response
b) Immediate response
c) Delayed

# Simulator Log

3/31/00 pm

Systems Demo

March 30, 2000 page 8/13

| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | FDR Start Time (if diff. than 1235 sec.) | Comments |
|---|---|---|---|---|---|---|---|
| TM gypt_demo -27.dm (New File) | 1 | 3:46 | 7 | 6 | 3a | 5.5 sec | Free Response |
| | 2 | | ✓7 | 6 | 3b | 5.5 | Immediate response LA = 32200 pt (lowest alt) "Very little roll off" |
| | 3 | 3:50 | ✓7 | 6 | 3c 5 sec | 6.5 sec | 5 second delay |
| | 4 | | ✓7 | 6 | 3c 20 sec | 7 sec | 20 second delay LA = 20800 pt |
| | 5 | | ✓7 | 6 | 3c "0" | | Feeling response in hands - enough to get your attention (whole body jerked) |
| | 6 | | 7 | 6✓ | 3b | | Hands on when failure input, immediate recovery. |

Failure @ time

Pilots:
1. Capt. P.D. Weston
2. ~~Dr. Brenner~~
3. ~~Dr. Elias~~
4. ~~Dr. Bolte~~
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12. Mr. Hamedy

Scenarios:
1 = dual disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Free response
b) Immediate response
c) Delayed

# Simulator Log

3/31/00 PM
TM

Systems Demo

March 31, 2000



| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | ~~FDR Start Time (if diff. than 1235 sec.)~~ Failure @ time | Comments |
|---|---|---|---|---|---|---|---|
| egypt_demo -27.dm | 7 | 3:55 pm | 7 | 6✓ | 3c 5sec | | 5 second delay |
| | 8 | 3:57 | 7 | 6✓ | 3c 20sec | 7sec | 20 second delay LA = 20200 pt (due to Failure) Tested w/ Hands off (COLUMN FWD), CAN'T TRIM UP |
| | 9 | 4:00 | 7 | 6✓ | 3c 24k' | 6sec | Recovery initiated @ 24000 pt. LA = 18050 pt Some trim at the end. |
| | 10 | 4:05 | 1 | 12 | 3a | | Free response |
| | 11 | | ✓1 | 12 | 3b | ~5sec | Immediate Recovery. FLYING FLIGHT DIRECTOR |
| | 12 | | ✓1 | 12 | 3c 5sec | 15sec | 5 sec delay |

Enclosure 6
BE326-C00-02P
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**Pilots:**
1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12 Mr Hamedy

1 = dual Disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**
1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Free Response
b) Immediate response
c) Delayed

# Simulator Log

Systems Demo

March 30, 2000

3/31/00 PM
TM

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| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | FDR Start Time (if diff. than 1235 sec.) Failure time | Comments |
|---|---|---|---|---|---|---|---|
| egypt-demo -27.dat | 13 | | ✓1 | 12 | 3c 20sec | 6.5 | 20 second delay 1: "Flight director bars are not your friend." CHASING Flight Director |
| | 14 | | 1 | 12✓ | 3b | | Immediate recovery 12: "Much heavier forces" |
| | 15 | | 1 | 12✓ | 3c 5sec | | 5 second delay |
| | 16 | | 1 | 12✓ | 3c 20sec | ~1sec? | 20 second delay LA = 21760 pt (lowest alt.) |
| | 17 | | ✓1 | 12 | 3b | 6sec | Immediate recovery & USING TRIM |
| | 18 | | 1 | 12 | 3a | 36sec | Free Response with Autothrottles engaged. |

Enclosure 6
BE326-C00-029
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**Pilots:**
1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12 Mr Hamedy

1 = dual Disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**
1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Free Response
b) Immediate response
c) Delayed

# Simulator Log

3/31/00 pm
TM

Systems Demo

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| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | FDR Start Time ~~(if diff. than 1235 sec.)~~ Failure time | Comments |
|---|---|---|---|---|---|---|---|
| egypt_demo_27.dvr | 19 | 4:22 pm | 1 | 6✓ | 3c 5sec | | 5 sec delay Autothrottles on (armed) LA = 28840 pt "6: a little harsh with A/T" |
| | 20 | 4:25 | 1 | 13✓ | 3b | | Immediate Recovery (no A/T) |
| | 21 | | 1 | 13✓ | 3c 5sec | | 5 Second delay |
| | 22 | | 1 | 13✓ | 3c 20sec | 5 | 20 second delay Following Flight Director |
| egypt_demo_27 | 23 | | 1 | 13✓ | 3c 10 sec | 20sec | 10 sec Recovery Pulled throttles Back |
| | 24 | 4:31 | 5 | 14✓ | 3c 20sec | ~11sec | 20 Second Delay Pulled Throttles Back LA = 17570 pt |

Enclosure 6
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**Pilots:**
1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12 Mr Hamedy
13 Scott Warner

**Scenarios:**
1 = dual Disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Force response
b) Immediate response
c) Delayed

# Simulator Log

Systems Demo

March 30, 2000

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3/31/00 PM
TM

| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | ~~FDR Start Time (if diff. than 1235 sec.)~~ Failure @ time | Comments |
|---|---|---|---|---|---|---|---|
| egypt-demo 27.dm | 25 | 4:33 | ✓5 | 14 | 3C 7sec | 7sec | 7 Second delay Pulled throttles back Pulled S/B immediately |
| | ~~26~~ ~~27~~ 28 | – | | | | | Test Case for 3 PCU JAM |
| | 29 | 4:55 | ✓8 | | | | 3 PCU FAILURE on 1 side 11° δe jammed (left δe) Can use trim ~~Test~~ Case Video off |
| | 30 | 4:57 | ✓8 | | | | 11° δe jam |
| | 31 | 4:58 | ✓8 | | | | 6° δe jam Used Stab Trim |
| | 32 | | ✓8 | | | | 6° δe jam no trim pulling 120 lbs Video off |

Enclosure 6
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**Pilots:**
1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Capt. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12 Mr Hamdy

1 = dual Disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**
1 = backdrive ~~only~~, column follows push
2 = backdrive ~~only~~, column follows pull
3 = backdrive ~~w/interrupt~~, pilot pulls
4 = backdrive ~~w/interrupt~~, co-pilot pushes

a) = Free response
b) Immediate response
c) Delayed

# Simulator Log

3/31/00 PM
TM

Systems Demo

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| File Name (if recorded) | Case # | Clock Time | Left Seat (✓=flying) | Right Seat (✓ = flying) | Scenario # | FDR Start Time (if diff. than 1235 sec.) | Comments |
|---|---|---|---|---|---|---|---|
| egypt-dem 27.dm | 33 | | ✓6 | | | | 6° Se jam (Video, ON) Throttle Back NO TRIM |
| | 34 | | ✓6 | | | | 6° Se jam Recovery @ -40° θ Throttle Back NO TRIM |
| egypt-dem | 35 | | ✓1 | | | | 6° Se jam 5 sec delay Throttle Back End of Video |
| egypt-dem -27.dm | 36 | 5:06pm | ✓7 | | | | 6° Se jam Seat slt back -40° θ recovery |
| | | | | | | | |
| | | | | | | | |

Enclosure 6
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**Pilots:**

1. Capt. P.D. Weston
2. Dr. Brenner
3. Dr. Elias
4. Dr. Bolte
5. Mr. John O' Callaghan
6. Mr. El Missiry
7. Capt. Kelada
8. Capt. Tafs
9. Capt. John Cashman
10. Capt. Buzz Nelson
11. Capt. Gus Stearns
12. Mr. Hamdy

1 = dual Disconnect
2 = 1 disconnect, 1 jam
3 = dual jam

**Scenarios:**

1 = backdrive only, column follows push
2 = backdrive only, column follows pull
3 = backdrive w/interrupt, pilot pulls
4 = backdrive w/interrupt, co-pilot pushes

a) = Free response
b) Immediate response
c) Delayed